

LISTING OF CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application.

Detailed Listing of Claims:

1. (Previously Presented) An Apparatus for adjusting a die of a printing press, comprising:

a chase defining a vertical axis and a horizontal axis, wherein the chase comprises first and second vertical ends and first and second horizontal ends;

a die frame slidably secured to the chase to allow sliding adjustment of the die frame along the chase from the first vertical end to the second vertical end and from the first horizontal end to the second horizontal end;

at least one horizontal guide secured with the chase and at least one vertical guide secured in the chase, the at least one horizontal guide and the at least one vertical guide slidably connected to the die frame to slidably secure the die frame to the chase and to permit the die frame to be slidably positioned along both the at least one horizontal guide and the at least one vertical guide;

a horizontal mount coupled to the at least one horizontal guide;

a vertical mount coupled to the at least one vertical guide;

a horizontal guide block movably secured to the chase to slide along the horizontal axis;

and

at least one of a coarse vertical adjustment mechanism and a coarse horizontal adjustment mechanism; and

at least one of a fine vertical adjustment mechanism and a fine horizontal adjustment mechanism;

wherein the coarse vertical adjustment mechanism and/or fine vertical adjustment mechanism is coupled to the vertical mount and the coarse horizontal adjustment and/or fine horizontal adjustment mechanism is coupled to the horizontal mount.

Claim 2 (Canceled).

3. (Previously Presented) An apparatus, as in Claim 1, the chase comprising an upper horizontal member, a lower horizontal member, a left vertical member secured to the upper horizontal member and the lower horizontal member and a right vertical member secured to the upper horizontal member and the lower horizontal member.

4. (Previously Presented) An apparatus, as in Claim 3, wherein the vertical mount is movably secured to the at least one vertical guide, with the die frame secured to the vertical slidably mount to slidably connect the die frame to the at least one vertical guide; and

the horizontal mount is movably secured to the at least one horizontal guide and secured to a first end of the at least one vertical guide; and

wherein a second end of the at least one vertical guide is slidably secured to one of the upper horizontal member and the lower horizontal member of the chase to permit the horizontal movement of the second end the at least one vertical guide along one of the upper horizontal member and the lower horizontal member.

5. (Original) An apparatus, as in Claim 4, the second end of the at least one vertical guide secured to a sliding element to slidably secure the end of the at least one vertical guide to one of the upper horizontal member and the lower horizontal member of the chase, the sliding element securedly attached to the second end of the at least one vertical guide and slidably attached to one of the upper horizontal member and the lower horizontal member.

Claims 6-9 (Canceled).

10. (Original) An apparatus, as in Claim 4, with at least one of the vertical guides comprising a spirally threaded vertical guide.

11. (Previously Presented) An apparatus, as in Claim 10, wherein the fine vertical adjustment mechanism comprises a spur gear and a worm gear, the spur gear attached to the spirally threaded vertical guide and the worm gear meshing with the spur gear such that the spur gear rotates the spirally threaded vertical rod when the worm gear is rotated.

12. (Original) An apparatus, as in Claim 10, further comprising the spirally threaded vertical guide received in a vertical bore of the vertical mount in a gearing relationship such that when the vertical spirally threaded rod is rotated the vertical mount moves along the vertical axis of the chase.

13. (Previously Presented) An apparatus, as in Claim 12, wherein the fine vertical adjustment mechanism comprises a spur gear and a worm gear, the spur gear attached to the spirally threaded vertical guide and the worm gear meshing with the spur gear such that the spur gear rotates the spirally threaded vertical guide when the worm gear is rotated.

14. (Previously Presented) An apparatus, as in Claim 12, wherein the coarse vertical adjustment mechanism comprises a vertical actuator movably received within a vertical actuator receiving cavity in the vertical mount and having an at least partially threaded bore extending through the vertical actuator, the at least partially threaded bore including receiving threads and being coextensive with the vertical bore of the vertical mount, the at least partially threaded bore providing the gearing relationship with the spirally threaded vertical guide, and the at least partially threaded bore being sized to release the spirally threaded vertical guide when the vertical actuator is displaced relative to the vertical mount.

15. (Original) An apparatus, as in Claim 14, further comprising the receiving threads of the partially threaded bore biased in a gearing relationship with the spirally threaded vertical guide by a compressible element biased between a bottom surface of the vertical actuator and a bottom of the cavity in the vertical mount.

16. (Original) An apparatus, as in Claim 15, with the compressible element comprising a coiled spring.

17. (Original) An apparatus, as in Claim 4, with at least one of the at least one horizontal guides comprising a spirally threaded horizontal guide.

18. (Original) An apparatus, as in Claim 17, further comprising the spirally threaded horizontal guide received in a horizontal bore of the horizontal mount in a gearing relationship such that when the spirally threaded horizontal guide is rotated, the horizontal mount moves along the horizontal axis of the chase.

19. (Previously Presented) An apparatus, as in Claim 18, wherein the fine horizontal adjustment mechanism comprises a spur gear attached to the spirally threaded horizontal guide, and a worm gear, with the worm gear meshing with the spur gear such that, when the worm gear is rotated, the spur gear rotates the spirally threaded horizontal guide to move the horizontal mount along the horizontal axis of the chase.

20. (Previously Presented) An apparatus, as in Claim 18, wherein the coarse horizontal adjustment mechanism comprises a horizontal actuator movably received within a horizontal actuator receiving cavity in the horizontal mount and having an at least partially threaded bore extending through the actuator, the at least partially threaded bore including receiving threads and being coextensive with the horizontal bore of the horizontal mount, the at least partially threaded bore including receiving threads and being coextensive with the horizontal bore of the horizontal mount, the at least partially threaded bore providing the gearing relationship with the spirally threaded horizontal guide, and the at least partially threaded bore being sized to release the spirally threaded vertical guide when the horizontal actuator is displaced relative to the horizontal mount.

21. (Original) An apparatus, as in Claim 20, further comprising the receiving threads of the partially threaded bore biased in a gearing relationship with the spirally threaded horizontal guide by a compressible element biased between a bottom surface of the horizontal mount.

22. (Original) An apparatus, as in Claim 21, with the compressible element comprising a coiled spring.

Claim 23 (Canceled).

24. (Withdrawn) A method for adjusting a die of a printing press, comprising:
- providing a die;
 - providing a die fixture including a chase, the chase defining a vertical and horizontal axis and comprising first and second vertical ends and first and second horizontal ends, and a die frame slidably secured to the chase to allow the die frame to slide along the chase from the first vertical end to the second vertical end and from the first horizontal end to the second horizontal end;
 - mounting the die in the die frame;
 - mounting the die fixture in the printing press;
 - coarsely adjusting the position of the die by sliding the die along the at least one of the vertical axis and the horizontal axis; and
 - refining the position of the die by sliding the die along at least one of the vertical axis and the horizontal axis.
25. (Previously Presented) An apparatus, as in Claim 3, wherein the at least one coarse vertical adjustment mechanism is contained within the vertical mount and the at least one coarse horizontal adjustment mechanism is contained within the horizontal mount.
26. (Previously Presented) An apparatus, as in Claim 3, wherein the at least one horizontal fine adjustment mechanism is contained within the horizontal mount.